WHAT IS CLAIMED IS:

1. A sensor for discriminating coins, comprising:

a magnetic core having first and second legs, each leg having a free end and a second end, said legs defining, respectively first and second generally opposed and spaced-apart faces and a bight region connecting said second ends of said first and second legs;

a low frequency winding coupled to a first portion of said bight region; and

a high frequency winding coupled to said core, wherein said high frequency winding is closer to at least one of said free ends than is said low frequency winding.

2. A sensor, as claimed in claim 1, wherein at least one of said first and second faces includes a generally flat region.

3. A sensor, as claimed in claim 1, wherein at least one of said first and second faces is curved.

4. A sensor as claimed in claim 1 wherein a tapered region is defined between said spaced-apart faces.

5. A sensor as claimed in claim 4 wherein said core has a longitudinal axis and wherein said tapered region tapers to a narrower dimension along said longitudinal axis in a direction away from said free ends.

6. A sensor as claimed in claim 4 wherein said core has a longitudinal axis and wherein said tapered region tapers to a narrower dimension along said longitudinal axis in a direction toward said free ends.

7. A sensor as claimed in claim 4 wherein said core has a longitudinal axis and wherein said tapered region tapers to a narrower dimension in a direction which is at an angle to said longitudinal axis.

8. A sensor, as claimed in claim 1 wherein said core has a longitudinal axis and wherein turns of said high-frequency winding are substantially parallel to a plane orthogonal to said longitudinal axis.

9. A sensor, as claimed in claim 1 wherein said core has a longitudinal axis and wherein turns of said high-frequency winding are substantially parallel to a plane which is at a non-orthogonal angle to said longitudinal axis.

10. A sensor, as claimed in claim 1 wherein said high-frequency winding is closer to at least one of said second ends than to said low-frequency winding.

11. A sensor, as claimed in claim 1, wherein said low-frequency winding is provided substantially in the absence of any turn of said low-frequency winding crossing over another turn of said low-frequency winding.

12. A sensor, as claimed in claim 1 wherein said core has a shape selected from the group consisting of:

a U-shape;

a V-shape;

a C-shape;

a G-shape;

a triangular shape;

a square shape;

a rectangular shape

a polygonal shape;

a circular shape;

an elliptical shape; and

an oval shape.

13. A sensor, as claimed in claim 1, wherein said sensor is configured to sense characteristics of a plurality of coins ranging from a minimum diameter coin to a maximum diameter coin and wherein said legs have a longitudinal extent at least equal to said maximum diameter.

14. A sensor, as claimed in claim 1, wherein said sensor is configured to sense characteristics of coins moving along a first coin flow direction and wherein said sensor has a thickness, in a dimension parallel to the direction of coin flow, of greater than about 0.5 inches.

15. A coin-handling apparatus comprising:

a first region for receiving a plurality of coins of a plurality of denominations in random orientation;

means for singulating at least some of said plurality of coins and transporting along a path toward at least a first sensing location;

at least a first sensor for receiving at least a first driving signal, for driving said sensor and providing sensor output, said sensor output including at least a first signal, said output being indicative of at least a first low-frequency coin characteristic and a second high-frequency coin characteristic;

circuitry coupled to said at least first sensor for receiving at least said sensor output and outputting at least a second signal indicative of whether a sensed object is an acceptable coin.

16. An apparatus, as claimed in claim 15, wherein said driving signal is selected from the group consisting of:

a sinusoidal signal;

a triangle signal;

a sawtooth signal;

a pulse signal; and

a squarewave signal.

17. An apparatus, as claimed in claim 15, further comprising means for providing a second sensor driving signal in a predefined relationship with said first driving signal

18. An apparatus, as claimed in claim 17 wherein said means for providing a second sensor driving signal in a predefined relationship with said first driving signal is selected from the group consisting of:

a phase locked loop circuit;

a frequency divider circuit; and

means for combining first and second frequencies.

19. An apparatus as claimed in claim 15 further comprising means for separating at least first and second components of said sensor output.

20. An apparatus as claimed in claim 19 wherein said means for separating comprises at least first and second filters.

21. Apparatus as claimed in claim 15 wherein said sensor includes a magnetic core and first and second windings and wherein said first driving signal provides a signal at a first frequency to said first winding and further comprising means for providing a second driving signal, at a second frequency to said second winding.

22. Apparatus for sensing coins moving along a coin path comprising:

magnetic core means adjacent said coin path;

winding means coupled to said magnetic core means;

means for providing at least a first signal with a first frequency to said winding means;

means for tuning said means for providing; and

means for using said winding means for frequency determination.

23. Apparatus, as claimed in claim 22 wherein said means for tuning is selected from the group consisting of a varactor and a variable inductor.

24. Coin-handling apparatus comprising:

An input tray for receiving a plurality of coins of a plurality of denominations in random orientations;

means for transporting coins from said input tray to a coin pickup device;

said coin pickup device having a hopper for receiving coins in a random orientation and at least a first rail for delivering coins at an exit region of said first rail, with said coins in a substantially coplanar attitude and in single file;

at least a first sensor, spaced from said exit region, for providing at least a first signal indicative of at least a first coin characteristic;

means for providing kinetic energy to said hopper to assist in movement of sticky coins.

25. Apparatus as claimed in claim 24 wherein said means for providing kinetic energy comprises means for providing vibration to said hopper.

26. Apparatus, as claimed in claim 25 further comprising a motor for use in moving coins in said hopper and wherein said motor is controlled to provide said vibration.